

PCT/US00/21079
DIALOG
09/368, 076

Set	Items	Description
S1	65	AU="JIN HONG"
S2	396	AU="TANG R"
S3	7	AU="TANG RODERICK" OR AU="TANG RODERICK S"
S4	465	S1 OR S2 OR S3
S5	24178	RESPIRATORY(W) SYNCYTIAL(W) VIRUS
S6	21101	RSV
S7	36885	S5 OR S6
S8	59	S4 AND 7
S9	57	S8 NOT PY>1999
S10	43	RD (unique items)
S11	8	S4 AND S7
S12	3	S11 NOT PY>1999
S13	3	RD (unique items)
S14	2318	M2(W)2
S15	3048987	DELETED OR DELETION OR MUTATED OR MUTATION OR SUBSTITUT?
S16	4237541	GENE? ?
S17	6895	S7 AND S15 AND S16
S18	22	S17 AND S14
S19	9	S18 NOT PY>1999
S20	9	RD (unique items)
S21	38	S14 AND S16 AND S7
S22	16	S21 NOT S18
S23	15	S22 NOT PY>1999
S24	4	RD (unique items)
S25	118057	SH
S26	576	S17 AND S25
S27	472	S26 NOT PY>1999
S28	444	RD (unique items)
S29	350	SH(W)GENE? ?
S30	50	S29(S)S15
S31	373	S28 AND 31
S32	333883	ATTENUATE? ?
S33	78	S31 AND S32
S34	7494	NS1
S35	7204	NS(W)1
S36	14015	S34 OR S35
S37	317	S17 AND S36
S38	271	S37 NOT PY>1999
S39	261	RD (unique items)
S40	2736	NS2
S41	1854	NS(W)2
S42	4496	S40 OR S41
S43	146	S17 AND S42
S44	67	S43 NOT (S33 OR S39)
S45	40	S44 NOT PY>1999
S46	29	RD (unique items)
S47	2624	M2(W)1
S48	3209	M21
S49	5756	S47 OR S48
S50	104	S49 AND S7
S51	63	RD (unique items)
S52	45	S51 NOT PY>1999
S53	34	S52 NOT (S33 OR S39 OR S46)
S54	112803	CHIMERIC
S55	3545	HETEROLOGOUS(W) SEQUENCE? ?
S56	114145	S54 OR S55
S57	1481072	STRAIN OR SUBGROUP
S58	129719	INFLUENZA
S59	114145	S54 OR S55

DIALOG

S60	1175082	STRAINS OR SUBGROUPS
S61	2319125	S57 OR S60
S62	1288	S7 AND S56 AND S60
S63	1228	S54 AND S62
S64	15199	S7/TI
S65	75	S63 AND S64
S66	67	S65 NOT PY>1999
S67	52	RD (unique items)
S68	1441	POLYMERASE(W) BINDING(W) SITE? ?
S69	392526	VACCINE? ?
S70	3	S64 AND S68 AND S69
S71	434	CYSTEINE(W) SCANNING(W) MUTAGENESIS
S72	259	S71 NOT PY>1998
S73	111	RD (unique items)
S74	1	S71 AND S7
?		

13/3,AB/1 (Item 1 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
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11770559 BIOSIS NO.: 199900016668

Recombinant human respiratory syncytial virus (RSV) from cDNA and construction of subgroup A and B chimeric RSV.

AUTHOR: Jin Hong (a); Clarke David; Zhou Helen Z-Y; Cheng Xing; Coelingh Kathleen; Bryant Martin; Li Shengqiang

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 **USA

1998

JOURNAL: Virology 251 (1):p206-214 Nov. 10, 1998

ISSN: 0042-6822

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Infectious human **respiratory syncytial virus (RSV)** was produced from a cDNA clone that contains 15,222 nucleotides of **RSV** genome derived from the A2 strain of subgroup A. Recovery of infectious **RSV** from cDNA required cotransfection of only three expression plasmids encoding the nucleoprotein (N), the phosphoprotein (P), and the major polymerase protein (L). Inclusion of the M2-1 plasmid was not required in the transfection reaction and if included did not significantly increase the rescue efficiency. However, a single nucleotide substitution in the **RSV** leader region (C to G at position 4 in the antigenomic sense), greatly increased the amount of infectious virus recovered from cDNA. A recombinant **RSVA2** virus that expresses an additional structural G protein derived from a subgroup B **RSV** was also obtained. Both A2 and B strain G glycoproteins were expressed in cells infected with the chimeric **RSV**. A chimeric **RSV** that expresses a heterologous subgroup antigen in a live attenuated vaccine candidate may be important for prevention of diseases associated with both **RSV** subgroup A and subgroup B infection.

13/3,AB/2 (Item 1 from file: 357)
 DIALOG(R)File 357:Derwent Biotechnology Abs
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0237347 DBA Accession No.: 99-07448 PATENT

Recombinant respiratory-syncytial viruses- for vaccine production against respiratory- syncytial virus, influenza virus, HIV virus-1, HIV virus-2 and hepatitis B virus infection

AUTHOR: Jin H; Tang R ; Li S; Bryant M

CORPORATE SOURCE: Mountain View, CA, USA.

PATENT ASSIGNEE: Aviron 1999

PATENT NUMBER: WO 9915631 PATENT DATE: 990401 WPI ACCESSION NO.:
 99-244413 (9920)

PRIORITY APPLIC. NO.: US 89207 APPLIC. DATE: 980612

NATIONAL APPLIC. NO.: WO 98US20230 APPLIC. DATE: 980928

LANGUAGE: English

ABSTRACT: A recombinant **respiratory -syncytial virus (RSV)** particle and virus vectors which express heterologous or mutated **RSV** genes are new. The **RSV** particle contains a **RSV** antigenome or genome containing at least one functional deletion in an M2 gene or encodes antigenic proteins of both **RSV -A** and **RSV -B** or contains a L-gene mutation. Also claimed are: a recombinant RNA molecule containing a binding site specific for a **RSV** reverse-transcriptase (EC-2.7.7.49) of a negative strand RNA virus operably linked to a **RSV** RNA

containing a heterologous RNA sequence containing the reverse complement of a coding sequence; a method of producing a chimeric RSV virus; a vaccine; and an attenuated, genetically engineered RSV containing at least one modified virus gene sequence, so at least some defective particles are produced during each round of virus replication in the host. The RSV can be used to produce vaccines, e.g. bivalent vaccine against RSV -A and RSV -B, or RSV and influenza virus. Recombinant RSV vaccines can also be constructed for viruses such as HIV virus-1, HIV virus-2 and hepatitis B virus. (85pp)

13/3,AB/3 (Item 1 from file: 349)
DIALOG(R) File 349:PCT Fulltext
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00632560

RECOMBINANT RSV VIRUS EXPRESSION SYSTEMS AND VACCINES
SYSTEMES D'EXPRESSION DE VIRUS RS DE RECOMBINAISON ET VACCINS

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9915631 A1 19990401

Application: WO 98US20230 19980928 (PCT/WO US9820230)

Priority Application: US 9760153 19970926; US 9884133 19980504; US 9889207 19980612

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 20523

English Abstract

The present invention relates to genetically engineered recombinant RS viruses and viral vectors which contain heterologous genes which for the use as vaccines. In accordance with the present invention, the recombinant RS viral vectors and viruses are engineered to contain heterologous genes, including genes of other viruses, pathogens, cellular genes, tumor antigens, or to encode combinations of genes from different strains of RSV .

French Abstract

Cette invention se rapporte a des virus et a des vecteurs viraux RS (respiratoire syncytial) de recombinaison genetiquement modifiees, qui contiennent des genes heterologues destines a servir de vaccins. Selon cette invention, ces vecteurs viraux et ces virus RS de recombinaison sont modifiees par genie genetique de facon a contenir des genes heterologues, y compris des genes d'autres virus, des agents pathogenes, des genes cellulaires et des antigenes tumoraux, ou pour coder des combinaisons de genes provenant de differentes souches du virus

DIALOG

? respiratoire syncytial (RS).

20/3,AB/1 (Item 1 from file: 155)
 DIALOG(R) File 155:MEDLINE(R)
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10069426 99432220

The M2 - 2 protein of human respiratory syncytial virus is a regulatory factor involved in the balance between RNA replication and transcription.

Birmingham A; Collins PL

Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, 7 Center Drive MSC 0720, Bethesda, MD 20892-0720, USA.

Proceedings of the National Academy of Sciences of the United States of America (UNITED STATES) Sep 28 1999, 96 (20) p11259-64, ISSN 0027-8424
 Journal Code: PV3

Languages: ENGLISH

Document type: JOURNAL ARTICLE

The M2 mRNA of human **respiratory syncytial virus (RSV)** contains two overlapping ORFs, encoding the transcription antitermination protein (M2-1) and the 90-aa **M2 - 2** protein of unknown function. Viable recombinant **RSV** was recovered in which expression of **M2 - 2** was ablated, identifying it as an accessory factor dispensable for growth in vitro. Virus lacking **M2 - 2** grew less efficiently than did the wild-type parent in vitro, with titers that were reduced 1,000-fold during the initial 2-5 days and 10-fold by days 7-8. Compared with wild-type virus, the intracellular accumulation of RNA by **M2 - 2** knockout virus was reduced 3- to 4-fold or more for genomic RNA and increased 2- to 4-fold or more for mRNA. Synthesis of the F and G glycoproteins, the major **RSV** neutralization and protective antigens, was increased in proportion with that of mRNA. In cells infected with wild-type **RSV**, mRNA accumulation increased dramatically up to approximately 12-15 hr after infection and then leveled off, whereas accumulation continued to increase in cells infected with the **M2 - 2** knockout viruses. These findings suggest that **M2 - 2** mediates a regulatory "switch" from transcription to RNA replication, one that provides an initial high level of mRNA synthesis followed by a shift in the RNA synthetic program in favor of genomic RNA for virion assembly. With regard to vaccine development, the **M2 - 2** knockout has a highly desirable phenotype in which virus growth is attenuated while **gene** expression is concomitantly increased.

20/3,AB/3 (Item 1 from file: 266)
 DIALOG(R) File 266:FEDRIP
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00277619

IDENTIFYING NO.: 1Z01AI00372-17 AGENCY CODE: CRISP

REPLICATION, VIRULENCE & IMMUNOGENICITY IN RECOMBINANT RESPIRATORY SYNCYTIAL VIRUS

PRINCIPAL INVESTIGATOR: COLLINS, PETER LEON

ADDRESS: NIAID, NIH

SPONSORING ORG.: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

FY : 2000

SUMMARY: Human **respiratory syncytial virus (RSV)** is the most important viral agent of pediatric respiratory tract disease worldwide and is responsible for a huge burden of morbidity and significant mortality. A licensed vaccine remains to be developed. Obstacles to vaccine development include the poor growth of the virus in cell culture, the semi-permissive nature of the infection in experimental animals, and the difficulty of achieving an appropriate balance between immunogenicity (which depends on reasonable levels of virus replication) and attenuation (which depends on reduced levels of virus replication). We recently developed a method for

producing infectious recombinant **RSV** by the intracellular coexpression of cDNAs encoding a complete **RSV** replicative intermediate RNA (antigenome) and the N, P, L and M2-1 proteins, which together constitute a nucleocapsid that is fully competent for RNA synthesis. This provides an important tool for basic molecular and pathogenesis studies as well as a method for fine-tuning the level of attenuation of candidate vaccine viruses. **RSV** encodes ten mRNAs encoding eleven proteins (the M2 mRNA contains two overlapping ORFs encoding two separate proteins, M2-1 and M2-2). We investigated whether individual **RSV** genes could be knocked out? (**deleted**) without ablating the ability of the virus to grow in cell culture. To date, four **RSV** genes have been individually knocked out without loss of infectivity, namely NS1, NS2, SH, and G. **Deletion** of the NS2 gene is highly attenuating in vitro and in vivo and represents a very useful **mutation** for vaccine purposes. The NS1 and SH knockout virus are moderately attenuating, and also are candidates for inclusion in a live-attenuated vaccine. The G knockout virus grows well in certain cells but not others, implying that it is using an alternative receptor whose distribution is cell-specific. The ability to recover a G knockout virus shows that G is not essential for the formation or transmission of infectious virus, findings which have important implications for virus assembly and receptor usage. Finally, we previously showed that **RSV** can accept and express an added foreign gene. Here, we have expressed certain cytokines in recombinant **RSV** as a possible method to improve the immune response to a live-attenuated vaccine. - Virus, vaccine, live-attenuated viral vaccine, pediatrics, infectious disease, respiratory tract disease, recombinant DNA

20/3,AB/5 (Item 2 from file: 349)
DIALOG(R) File 349:PCT Fulltext
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00632560

RECOMBINANT RSV VIRUS EXPRESSION SYSTEMS AND VACCINES
SYSTEMES D'EXPRESSION DE VIRUS RS DE RECOMBINAISON ET VACCINS

Patent Applicant/Assignee:

AVIRON INC, AVIRON, INC., 297 North Bernardo Avenue, Mountain View, CA 94043, US

Inventor(s):

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BRYANT Marty, BRYANT, Marty, 1664 Clay Drive, Los Altos, CA 94024, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 9915631 A1 19990401

Application: WO 98US20230 19980928 (PCT/WO US9820230)

Priority Application: US 9760153 19970926; US 9884133 19980504; US 9889207 19980612

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ

VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH

CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW

ML MR NE SN TD TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 20523

English Abstract

DIALOG

The present invention relates to genetically engineered recombinant RS viruses and viral vectors which contain heterologous **genes** which for the use as vaccines. In accordance with the present invention, the recombinant RS viral vectors and viruses are engineered to contain heterologous **genes**, including **genes** of other viruses, pathogens, cellular **genes**, tumor antigens, or to encode combinations of **genes** from different strains of RSV.

French Abstract

Cette invention se rapporte a des virus et a des vecteurs viraux RS (respiratoire syncytial) de recombinaison genetiquement modifiés, qui contiennent des **genes** heterologues destines a servir de vaccins. Selon cette invention, ces vecteurs viraux et ces virus RS de recombinaison sont modifiés par genie genetique de facon a contenir des **genes** heterologues, y compris des **genes** d'autres virus, des agents pathogenes, des **genes** cellulaires et des antigenes tumoraux, ou pour coder des combinaisons de **genes** provenant de differentes souches du virus respiratoire syncytial (RS).

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24/3,AB/1 (Item 1 from file: 155)
 DIALOG(R) File 155:MEDLINE(R),
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09527952 98285727

Identification of the respiratory syncytial virus proteins required for formation and passage of helper-dependent infectious particles.

Teng MN; Collins PL

Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, Maryland 20892-0720, USA.

Journal of virology (UNITED STATES) Jul 1998, 72 (7) p5707-16, ISSN 0022-538X Journal Code: KCV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

We developed a system to identify the viral proteins required for the packaging and passage of human **respiratory syncytial virus (RSV)** by reconstructing these events with cDNA-encoded components. Plasmids encoding individual **RSV** proteins, each under the control of a T7 promoter, were cotransfected in various combinations together with a plasmid containing a minigenome into cells infected with a vaccinia virus recombinant expressing T7 RNA polymerase. Supernatants from these cells were passaged onto fresh cells which were then superinfected with **RSV**. Functional reconstitution of **RSV**-specific packaging and passage was detected by expression of the reporter gene carried on the minigenome. As expected, the four nucleocapsid proteins N, P, L, and M2-1 failed to direct packaging and passage of the minigenome. Passage was achieved by further addition of plasmids expressing three membrane-associated proteins, M, G, and F; inclusion of the fourth envelope-associated protein, SH, did not alter passage efficiency. Passage was reduced 10- to 20-fold by omission of G and was abrogated by omission of either M or F. Coexpression of the nonstructural NS1 or NS2 protein had little effect on packaging and passage except through indirect effects on RNA synthesis in the initial transfection. The M2-1 transcription elongation factor was not required for the generation of passage-competent particles. However, addition of increasing quantities of M2-1 to the transfection mediated a dose-dependent inhibition of passage which was alleviated by coexpression of the putative negative regulatory factor **M2 - 2**. Omission of the L plasmid reduced passage 10- to 20-fold, most likely due to reduced availability of encapsidated minigenomes for packaging. However, the residual level of passage indicated that neither L protein nor the process of **RSV**-specific RNA synthesis is required for the production and passage of particles. Omission of N or P from the transfection abrogated passage. Thus, the minimum **RSV** protein requirements for packaging and passaging a minigenome are N, P, M, and F, although the efficiency is greatly increased by addition of L and G.

24/3,AB/4 (Item 1 from file: 349)
 DIALOG(R) File 349:PCT Fulltext
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00565860

NUCLEIC ACID PARTICLE DELIVERY

ADMINISTRATION DE PARTICULES D'ACIDE NUCLEIQUE

Patent Applicant/Assignee:

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DIALOG

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9810750 A2 19980319

Application: WO 97GB2478 19970911 (PCT/WO GB9702478)

Priority Application: GB 9619002 19960911

Designated States: AL AM AU AZ BA BB BG BR BY CA CN CU CZ EE GB GE GH HU ID

IL IS JP KE KG KP KR KZ LC LK LR LS LT LV MD MG MK MN MW MX NO NZ PL RO

RU SD SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS MW SD SZ UG

ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC

NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 9194

English Abstract

Particles comprising a nucleic acid molecule are suitable for needleless
injection, to skin or mucosal tissue, without a metal carrier.

French Abstract

La presente invention concerne des particules comprenant une molecule
d'acide nucleique qui peuvent etre injectees sans aiguille dans la peau
ou les tissus muqueux et ne requierent pas de metal transporteur.

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33/3,AB/3 (Item 3 from file: 98)
 DIALOG(R) File 98:General Sci Abs/Full-Text
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04004113 H.W. WILSON RECORD NUMBER: BGS199004113

Nonsegmented negative-strand RNA viruses: genetics and manipulation of viral genomes.

Conzelmann, Karl-Klaus

Annual Review of Genetics (Annu Rev Genet) v. 32 ('98) p. 123-62

SPECIAL FEATURES: bibl il ISSN: 0066-4197

LANGUAGE: English

COUNTRY OF PUBLICATION: United States

WORD COUNT: 19760

ABSTRACT: The genetics and manipulation of nonsegmented negative-strand RNA viruses (NSVs) are discussed. Protocols that have been developed to recover NSVs entirely from cDNA have opened up this group of viruses to detailed molecular genetic and virus biology analyses. The **gene** -expression strategy of nonsegmented NSVs involves the replication of ribonucleoprotein complexes and sequential synthesis of free mRNA. This strategy permits the use of NSVs to express heterologous sequences and has definite advantages in terms of easy manipulation of constructs, high capacity for foreign sequences, genetically stable expression, and the possibility of controlling the levels of expression. Furthermore, chimeric virus vectors carrying novel envelope protein **genes** and targeted to defined host cells offer interesting prospects for biomedical applications and transient **gene** therapy.

33/3,AB/12 (Item 8 from file: 349)
 DIALOG(R) File 349:PCT Fulltext
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00664865

MUTATIONS RESPONSIBLE FOR ATTENUATION IN MEASLES VIRUS OR HUMAN RESPIRATORY SYNCYTIAL VIRUS SUBGROUP B

MUTATIONS RESPONSABLES DE L'ATTENUATION DU VIRUS DE LA ROUGEOLE OU DU VIRUS RESPIRATOIRE SYNCYTIAL HUMAIN DU SOUS-GROUPE B

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9949017 A2 19990930

Application: WO 99US6225 19990322 (PCT/WO US9906225)

Priority Application: US 9879466 19980326

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV

MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG

US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ

TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI

CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Filing Language: English
Fulltext Word Count: 18243

English Abstract

Isolated, recombinantly-generated, **attenuated** measles viruses and respiratory syncytial subgroup B viruses having defined attenuating mutations are described. Vaccines are formulated comprising such viruses and a physiologically acceptable carrier. The vaccines are used for immunizing an individual to induce protection against measles virus or respiratory syncytial subgroup B virus.

French Abstract

L'invention concerne le virus de la rougeole et le virus respiratoire syncytial humain du sous-groupe B, ces virus atant isolas, ganaras par recombinaison et attanuas et prasantant des mutations d'attanuation dafinies. L'invention concerne agalement des formulations de vaccins comprenant ces virus et un excipient physiologiquement acceptable. Les vaccins s'utilisent pour immuniser un individu et le protager contre le virus de la rougeole ou le virus respiratoire syncytial humain du sous-groupe B.

33/3,AB/17 (Item 13 from file: 349)
DIALOG(R)File 349:PCT Fulltext
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00632595

ATTENUATED RESPIRATORY SYNCYTIAL VIRUSES
VIRUS SYNCYTIAUX RESPIRATOIRES ATTENUES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9915672 A1 19990401

Application: WO 98US19145 19980915 (PCT/WO US9819145)

Priority Application: US 9759552 19970919

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US

UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE

CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN

GW ML MR NE SN TD TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 24023

English Abstract

Isolated, recombinantly-generated, **attenuated** , respiratory syncytial viruses of subgroup B having at least one attenuating **mutation** in the RNA polymerase **gene** are described. Vaccines are formulated comprising such viruses and a physiologically acceptable carrier. The vaccines are used for immunizing an individual to induce protection against **respiratory syncytial virus** .

French Abstract

Virus syncytiaux respiratoires atténues, isolés, générés par recombinaison, appartenant au sous-groupe B et possédant au moins une **mutation** d'atténuation dans le **gène** de polymérase d'ARN. Formulations de vaccins comprenant ces virus, ainsi qu'un véhicule acceptable sur le plan physiologique. On utilise ces vaccins dans le but d'immuniser un individu afin d'induire une protection contre le virus syncytial respiratoire.

33/3,AB/27 (Item 23 from file: 349)
 DIALOG(R) File 349:PCT Fulltext
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00571939

METHOD OF VACCINATING INFANTS AGAINST INFECTIONS**PROCEDE DE VACCINATION DE NOURRISSONS CONTRE LES INFECTIONS**

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9817283 A1 19980430

Application: WO 97US19509 19971023 (PCT/WO US9719509)

Priority Application: US 9629463 19961025

Designated States: AU CA JP US AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL
PT SE

Publication Language: English

Filing Language: English

Fulltext Word Count: 14013

English Abstract

A method for overcoming maternal inhibition to a vaccine in a mammalian infant under 1 year of age, provided by administering to the infant in a suitable pharmaceutical carrier, a recombinant polynucleotide sequence (i.e., a recombinant virus or DNA vaccine) comprising a sequence encoding an antigen of a pathogenic organism. The polynucleotide vector (i.e., virus or DNA vaccine) useful in this method does not naturally cause a pathogenic infection in the species of the mammalian infant to which the vaccine is administered.

French Abstract

Cette invention se rapporte à un procédé permettant de vaincre la réaction négative à un vaccin due à la présence des anticorps maternels chez un nourrisson mammifère dans sa première année. Ledit procédé consiste à administrer au nourrisson, dans un excipient pharmaceutiquement acceptable, une séquence polynucleotidique de recombinaison (par exemple un virus de recombinaison ou un vaccin à ADN) comprenant une séquence codant un antigène d'un organisme pathogène. Ledit vecteur polynucleotidique (c'est à dire le virus ou le vaccin à ADN) utilisé par ce procédé ne provoque pas naturellement une infection pathogène chez l'espèce du nourrisson mammifère auquel on administre le vaccin.

33/3,AB/30 (Item 26 from file: 349)
 DIALOG(R) File 349:PCT Fulltext
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00557563

PRODUCTION OF ATTENUATED RESPIRATORY SYNCYTIAL VIRUS VACCINES FROM CLONED NUCLEOTIDE SEQUENCES

PRODUCTION DE VACCINS A BASE DE VIRUS RESPIRATOIRE SYNCYTIAL ATTENUÉ, A PARTIR DE SEQUENCES NUCLEOTIDIQUES CLONÉES

Patent Applicant/Assignee:

THE GOVERNMENT OF THE UNITED STATES OF AMERICA as represented by THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, THE GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, Box OTT, Bethesda, MD 20892, US

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9802530 A1 19980122
 Application: WO 97US12269 19970715 (PCT/WO US9712269)
 Priority Application: US 9621773 19960715; US 9746141 19970509; US 9747634 19970523

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 64494

English Abstract

Attenuated respiratory syncytial virus (RSV) and vaccine compositions thereof are produced by introducing specific mutations associated with attenuating phenotypes into wild-type or RSV which is incompletely attenuated by cold-passage or introduction of mutations which produce virus having a temperature sensitive (< u> ts < /u>) or cold adapted (< u> ca < /u>) phenotype. Alternatively, recombinant RSV and vaccine compositions thereof incorporate attenuating and other mutations specifying desired structural and or phenotypic characteristics in an infectious RSV. Recombinant RSV incorporate desired mutations specified by insertion, deletion, substitution or rearrangement of a selected nucleotide sequence, gene, or gene segment in an infectious RSV clone. The immune system of an individual is stimulated to induce protection against natural RSV infection, or multivalently against infection by RSV and another pathogen, such as PIV, by administration of attenuated, biologically derived or recombinant RSV.

French Abstract

On produit un virus respiratoire syncytial (VRS) et des compositions vaccinales a base dudit virus en introduisant des mutations specifiques associees a des phenotypes attenuants dans le type sauvage ou VRS. Celui-ci est incompletement attenué soit par passage au froid, soit par

introduction de mutations qui donnent des virus ayant un phenotype sensible a la temperature '(< u> ts < /u>) ou adapte au froid (< u> ca < /u>). Le VRS recombinant et ses compositions vaccinales peuvent egalement introduire dans un VRS infectieux des mutations attenuantes ou d'autres mutations specifiant ses caracteristiques structurelles ou phenotypiques. Le VRS recombinant incorpore les mutations desirees specifiees par insertion, deletion, substitution ou rearrangement d'une sequence de nucleotides, d'un gene ou d'un segment de gene selectionne, dans un clone de VRS infectieux. Le systeme immunitaire d'un individu est stimule de facon a induire une protection contre l'infection a VRS naturel, ou, de maniere plurivalente, contre l'infection a VRS et un autre pathogene, tel le virus para-influenza, par l'administration d'un VRS attenué, biologiquement derive ou recombinant.

33/3,AB/41 (Item 37 from file: 349)
DIALOG(R) File 349:PCT Fulltext
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00511883

PRODUCTION OF INFECTIOUS RESPIRATORY SYNCYTIAL VIRUS FROM CLONED NUCLEOTIDE SEQUENCES

PRODUCTION DE VIRUS SYNCYTIAL RESPIRATOIRE INFECTIEUX A PARTIR DE SEQUENCES DE NUCLEOTIDES CLONES

Patent Applicant/Assignee:

THE GOVERNMENT OF THE UNITED STATES OF AMERICA as represented by THE COLLINS Peter L

Inventor(s):

COLLINS Peter L

Patent and Priority Information (Country, Number, Date):

Patent: WO 9712032 A1 19970403

Application: WO 96US15524 19960927 (PCT/WO US9615524)

Priority Application: US 957083 19950927

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 16569

English Abstract

Isolated polynucleotide molecules provide **RSV** genome and antigenomes, including that of human, bovine or murine **RSV** or **RSV** -like viruses, and chimera thereof. The recombinant genome or antigenome can be expressed with a nucleocapsid (N) protein, a nucleocapsid phosphoprotein (P), a large (L) polymerase protein, and an RNA polymerase elongation factor to produce isolated infections **RSV** particles. The recombinant **RSV** genome and antigenome can be modified to produce desired phenotypic changes, such as **attenuated** viruses for vaccine use.

French Abstract

Cette invention concerne des molecules de polynucleotides isolees permettant d'obtenir des genomes et antigenomes de VSR, y compris ceux de VSR humains, bovins et murins ou de virus de type VSR, ainsi que leurs chimeres. Le genome ou antigenome recombine peut etre exprime a l'aide d'une proteine a nucleocapside (N), d'une phosphoproteine a nucleocapside (P), d'une proteine de polymerase de grande taille (L) et d'un facteur d'allongement d'ARN polymerase afin de produire des particules de VSR infectieuses isolees. Les genome et antigenome de VSR recombines peuvent etre modifies afin de produire les changements phenotypiques voulus, tel

que des virus affaiblis pouvant etre utilises dans des vaccins.

33/3,AB/42 (Item 38 from file: 349)
DIALOG(R)File 349:PCT Fulltext
(c) 2000 WIPO/MicroPat. All rts. reserv.

00505227

**cDNA CORRESPONDING TO THE ANTIGENOME OF NONSEGMENTED NEGATIVE STRAND RNA
VIRUSES, AND PROCESS FOR THE PRODUCTION OF SUCH VIRUSES ENCODING
ADDITIONAL ANTIGENICALLY ACTIVE PROTEINS**
**ADNc CORRESPONDANT A L'ANTIGENOME DE VIRUS ARN A SOUCHE NEGATIVE ET NON
SEGMENTES, ET PROCEDE DE PRODUCTION DE CES VIRUS CODANT DES PROTEINES
SUPPLEMENTAIRES A ACTIVITE ANTIGENETIQUE**

Patent Applicant/Assignee:

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RAECKE Frank
SCHNEIDER Henriette

Inventor(s):

BILLETER Martin A
SPIELHOFER Pius
KALIN Karin
RAECKE Frank
SCHNEIDER Henriette

Patent and Priority Information (Country, Number, Date):

Patent: WO 9706270 A1 19970220
Application: WO 96EP3544 19960809 (PCT/WO EP9603544)
Priority Application: EP 95112559 19950809

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB
GE HU IL IS JP KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT
RO RU SD SE SG TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG
KZ MD RU TJ TM CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG
CI CM GA GN ML SN TD TG

Publication Language: English
Fulltext Word Count: 16685

English Abstract

The present invention relates, in general, to a methodology for the generation of nonsegmented negative-strand RNA viruses (Pringle, 1991) from cloned deoxyribonucleic acid (cDNA). Such rescued viruses are suitable for use as vaccines, or alternatively, as plasmids in somatic gene therapy applications. The invention also relates to cDNA molecules suitable as tools in this methodology and to helper cell lines allowing the direct rescue of such viruses. Measles virus (MV) is used as a model for other representatives of the Mononegavirales, in particular the family Paramyxoviridae.

French Abstract

L'invention concerne, d'une maniere generale, une methodologie pour la generation de virus ARN a souche negative et non segmentes (Pringle 1991) a partir d'acide desoxyribonucleique clone (ADNc). Ces virus recuperes peuvent etre utilises comme vaccins, ou comme plasmides dans des applications de therapies geniques somatiques. L'invention porte egalement sur des molecules d'ADNc pouvant etre utilisees comme outils dans cette methodologie et sur des lignes de cellules auxiliaires permettant la recuperation directe desdits virus. Le virus de la rougeole est utilise comme modele pour d'autres representants de Mononegavirales, en particulier de la famille des paramyxoviridae.

33/3,AB/57 (Item 53 from file: 349)
 DIALOG(R)File 349:PCT Fulltext
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00298186

BOVINE RESPIRATORY SYNCYTIAL VIRUS GENES
GENES DE VIRUS SYNCYTIAUX RESPIRATOIRES CHEZ LES BOVINS

Patent Applicant/Assignee:

SAMAL Siba Kumar

Inventor(s):

SAMAL Siba Kumar

Patent and Priority Information (Country, Number, Date):

Patent: WO 9207940 A2 19920514

Application: WO 91US8177 19911104 (PCT/WO US9108177)

Priority Application: US 90608937 19901105

Designated States: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM DE DK ES FI FR

GA GB GN GR HU KP KR LK LU MC MG ML MR MW NL NO RO SD SE SN SU TD TG US

Publication Language: English

Fulltext Word Count: 19377

English Abstract

The present invention relates to **genes** derived from bovine **respiratory syncytial virus** (BRSV). The invention also relates to vectors produced with the **genes**, expression systems for the **genes**, as well as diagnostic probes comprising the **genes**, recombinant proteins and vaccines. The recombinant nucleocapsid protein is particularly useful for diagnostic testing for early detection of a BRSV infection.

French Abstract

L'invention se rapporte a des **genes** derives du virus syncytial respiratoire des bovins (BRSV). L'invention se rapporte egalement a des vecteurs produits avec les **genes**, a des systemes d'expression des **genes**, ainsi qu'a des sondes de diagnostic comportant les **genes**, a des proteines recombinées et a des vaccins. La proteine recombinée de nucleocapsidation est particulierement efficace dans des controles diagnostiques de detection precoce d'une infection par BRSV.

33/3,AB/65 (Item 2 from file: 654)
 DIALOG(R)File 654:US Pat.Full.
 (c) format only 2000 The Dialog Corp. All rts. reserv.

03046648

Utility

PRODUCTION OF ATTENUATED RESPIRATORY SYNCYTIAL VIRUS VACCINES FROM CLONED NUCLEOTIDE SEQUENCES

PATENT NO.: 5,993,824

ISSUED: November 30, 1999 (19991130)

INVENTOR(s): Murphy, Brian R., Bethesda, MD (Maryland), US (United States of America)

Collins, Peter L., Rockville, MD (Maryland), US (United States of America)

Whitehead, Stephen S., Gaithersburg, MD (Maryland), US (United States of America)

Bukreyev, Alexander A., Rockville, MD (Maryland), US (United States of America)

Juhasz, Katalin, Rockville, MD (Maryland), US (United States of America)

Teng, Michael N., Rockville, MD (Maryland), US (United States

of America)
 ASSIGNEE(s): The United States of America as represented by the Department
 of Health and Human Services, (A U.S. Government Agency),
 Washington, DC (District of Columbia, US (United States of
 America)
 [Assignee Code(s): 6814]
 APPL. NO.: 8-892,403
 FILED: July 15, 1997 (19970715)

RELATED APPLICATIONS

The present application claims the benefit of and is a
 continuation-in-part of U.S. Provisional application Nos. 60-047,634, filed
 May 23, 1997, 60-046,141, filed May 9, 1997, and 60-021,773, filed Jul. 15,
 1996, each of which is incorporated herein by reference.

FULL TEXT: 8685 lines

ABSTRACT

Attenuated respiratory syncytial virus (RSV) and vaccine compositions
 thereof are produced by introducing specific mutations associated with
 attenuating phenotypes into wild-type or RSV which is incompletely
 attenuated by cold-passage or introduction of mutations which produce virus
 having a temperature sensitive (ts) or cold adapted (ca) phenotype.
 Alternatively, recombinant RSV and vaccine compositions thereof incorporate
 attenuating and other mutations specifying desired structural and or
 phenotypic characteristics in an infectious RSV. Recombinant RSV
 incorporate desired mutations specified by insertion, deletion,
 substitution or rearrangement of a selected nucleotide sequence, gene, or
 gene segment in an infectious RSV clone. The immune system of an individual
 is stimulated to induce protection against natural RSV infection, or
 multivalently against infection by RSV and another pathogen, such as PIV,
 by administration of attenuated, biologically derived or recombinant RSV.

33/3,AB/69 (Item 6 from file: 654)
 DIALOG(R)File 654:US Pat.Full.
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02980241

Utility

MUTANT RESPIRATORY SYNCYTIAL VIRUS (RSV), VACCINES CONTAINING SAME
 AND METHODS OF USE

PATENT NO.: 5,932,222
 ISSUED: August 03, 1999 (19990803)
 INVENTOR(s): Randolph, Valerie B., Lincoln Park, NJ (New Jersey), US
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 Crowley, Joan C., Englewood, NJ (New Jersey), US (United
 States of America)
 ASSIGNEE(s): American Cyanamid Company, (A U.S. Company or Corporation),
 Wayne, NJ (New Jersey), US (United States of America)
 [Assignee Code(s): 2888]
 APPL. NO.: 8-59,444
 FILED: May 07, 1993 (19930507)

RELATED APPLICATIONS

DIALOG

The present application is a continuation-in-part of U.S. Ser. No. 07-871,420, filed on Apr. 21, 1992, now abandoned, the disclosure of which is incorporated herein by reference.

FULL TEXT: 3120 lines

ABSTRACT

This invention provides cold adapted mutant **RSV**, specifically, mutant **RSV** of subgroup A and B. Nucleic acid molecules encoding the mutant **RSV** of this invention, and immunogenic polypeptides of these mutant **RSV** also are provided by this invention. Pharmaceutical compositions containing any of the above compositions are provided herein. These are especially useful as vaccines. Further provided by this invention are methods of vaccinating a subject against **RSV** infection using the pharmaceutical compositions described herein.

33/3,AB/72 (Item 9 from file: 654)
DIALOG(R) File 654:US Pat.Full.
(c) format only 2000 The Dialog Corp. All rts. reserv.

02822727

Utility

STRANDED RNA VIRUS PARTICLES

[Vaccines, **gene** therapy, viricides; genetic engineering]

PATENT NO.: 5,789,229

ISSUED: August 04, 1998 (19980804)

INVENTOR(s): Wertz, Gail W., Birmingham, AL (Alabama), US (United States of America)

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Barr, John N., Birmingham, AL (Alabama), US (United States of America)

Whelan, Sean P. J., Birmingham, AL (Alabama), US (United States of America)

ASSIGNEE(s): UAB Research Foundation, (A U.S. Company or Corporation), Birmingham, AL (Alabama), US (United States of America)

[Assignee Code(s): 24503]

APPL. NO.: 8-514,975

FILED: September 29, 1995 (19950929)

RELATED APPLICATIONS

This application is a continuation-in-part application of U.S. Ser. No. 08-475,587 filed Jun. 7, 1995 now abandoned, which is a continuation-in-part application of U.S. Ser. No. 08-316,438 filed Sep. 30, 1994 U.S. Pat. No. 5,716,821.

GOVERNMENT SUPPORT

The work resulting in this invention was supported in part by certain NIH/NIAID Grants. The U.S. Government may therefore be entitled to certain rights in the invention.

9, September 12, 2000, 09:53

FULL TEXT: 2015 lines

ABSTRACT

Recombinant methods for recovering wildtype or engineered negative stranded, non-segmented RNA virus genomes containing non-coding 3' and 5' regions (e.g. leader or trailer regions) surrounding one, several or all of the **genes** of the virus or one or more heterologous **gene** (s) in the form of ribonucleocapsids containing N, P and L proteins, which are capable of replicating and assembling with the remaining structural proteins to bud and form virions, or which are only capable of infecting one cell, or are transcribing particles, are disclosed. Novel vaccines, **gene** therapy vectors and antiviral compounds based on these viral particles are also disclosed.

33/3,AB/74 (Item 11 from file: 654)
DIALOG(R) File 654:US Pat.Full.
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02745541

Utility

PREVENTION AND TREATMENT OF RESPIRATORY TRACT DISEASE

[Pure, recombinant virus particles comprising **respiratory syncytial virus** RNA dependent RNA polymerase, a phosphoprotein, a nucleocapsid, a structural protein, RNA sequences; vaccines]

PATENT NO.: 5,716,821
ISSUED: February 10, 1998 (19980210)
INVENTOR(s): Wertz, Gail W., Birmingham, AL (Alabama), US (United States of America)
Yu, Qingzhong, Birmingham, AL (Alabama), US (United States of America)
ASSIGNEE(s): UAB Research Foundation, (A U.S. Company or Corporation), Birmingham, AL (Alabama), US (United States of America)
[Assignee Code(s): 24503]
APPL. NO.: 8-316,438
FILED: September 30, 1994 (19940930)

GOVERNMENT SUPPORT

The work resulting in this invention was supported in part by NIH/NIAID Grant No AI20181. The U.S. Government may therefore be entitled to certain rights in the invention.

FULL TEXT: 994 lines

ABSTRACT

Recombinant methods for recovering wildtype or engineered negative stranded, non-segmented RNA virus genomes containing non-coding 3' and 5' regions (e.g. leader or trailer regions) surrounding one, several or all of the **genes** of the virus or one or more heterologous **gene** (s) in the form of ribonucleocapsids containing N, P and L proteins, which are capable of replicating and assembling with the remaining structural proteins to bud and form virions, or which are only capable of infecting one cell, or are defective interfering particles, are disclosed. Novel vaccines, **gene** therapy vectors and antiviral compounds are also disclosed.

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39/3,AB/1 (Item 1 from file: 155)
 DIALOG(R)File 155:MEDLINE(R)
 (c) format only 2000 Dialog Corporation. All rts. reserv.

10212368 20015405

Rational design of live-attenuated recombinant vaccine virus for human respiratory syncytial virus by reverse genetics.

Collins PL; Whitehead SS; Bukreyev A; Fearn R; Teng MN; Juhasz K; Chanock RM; Murphy BR

Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, Maryland 20892-0720, USA.

Advances in virus research (UNITED STATES) 1999, 54 p423-51, ISSN 0065-3527 Journal Code: 2PW

Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL

RSV is a major cause of pediatric respiratory tract disease worldwide, but a vaccine is not yet available. It is now possible to prepare live infectious **RSV** completely from cDNA. This provides a method for introducing defined mutations into infectious virus, making possible the rational design of a live-attenuated vaccine virus for intranasal administration. This is particularly important for **RSV**, for which achieving the appropriate balance between attenuation and immunogenicity by conventional methods has proven elusive. We took advantage of the existence of a panel of biologically derived vaccine candidate viruses that were incompletely attenuated but well characterized biologically. The mutations in these viruses were identified by sequence analysis and characterized by insertion into recombinant virus, thereby providing a menu of known attenuating mutations. These included a series of amino acid point mutations, mostly in the L polymerase, and a nucleotide **substitution** in a transcription **gene** -start signal, a cis-acting RNA element. The second source of mutations was from experimental mutational analysis of recombinant virus and involves **deletion** of the **NS1**, **NS2**, or **SH gene**. We have reconstructed a previously tested, biologically derived attenuated virus, cpts248/404, in recombinant form and are now proceeding to introduce additional mutations from the menu to achieve stepwise increases in attenuation. The ability to modify the attenuation phenotype incrementally in a directed manner should result in an appropriate vaccine virus.

39/3,AB/2 (Item 2 from file: 155)
 DIALOG(R)File 155:MEDLINE(R)
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09762201 99102605

Altered growth characteristics of recombinant respiratory syncytial viruses which do not produce NS2 protein.

Teng MN; Collins PL

Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, Maryland 20892-0720, USA.

Journal of virology (UNITED STATES) Jan 1999, 73 (1) p466-73, ISSN 0022-538X Journal Code: KCV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

The second **gene** in the 3'-to-5' **gene** order in **respiratory syncytial virus (RSV)** encodes the nonstructural protein NS2, for which there is no assigned function. To study the function of NS2, we have used a recently developed reverse genetics system to ablate expression of NS2 in recombinant **RSV**. A full-length cDNA copy of the antigenome of **RSV**

A2 strain under the control of a T7 promoter was modified by introduction of tandem termination codons within the NS2 open reading frame (NS2stop) or by **deletion** of the entire NS2 **gene** (DeltaNS2). The NS2 knockout

antigenomic cDNAs were cotransfected with plasmids encoding the N, P, L, and M2-1 proteins of **RSV**, each controlled by the T7 promoter, into cells infected with a vaccinia virus recombinant expressing T7 RNA polymerase. Recombinant NS2stop and DeltaNS2 RSVs were recovered and characterized. Both types of NS2 knockout virus displayed pinpoint plaque morphology and grew more slowly than wild-type **RSV**. The expression of monocistronic mRNAs for the five **genes** examined (**NS1**, NS2, N, F, and L) was unchanged in cells infected with either type of NS2 knockout virus, except that no NS2 mRNA was detected with the DeltaNS2 virus. Synthesis of readthrough mRNAs was affected only for the DeltaNS2 virus, where the **NS1**-NS2, NS2-N, and **NS1**-NS2-N mRNAs were replaced with the predicted novel **NS1**-N mRNA. Upon passage, the NS2stop virus stock rapidly developed revertants which expressed NS2 protein and grew with similar plaque morphology and kinetics wild-type **RSV**. Sequence analysis confirmed that the termination codons had reverted to sense, albeit not the wild-type assignments, and provided evidence consistent with biased hypermutation. No revertants were recovered from recombinant DeltaNS2 **RSV**. These results show that the NS2 protein is not essential for **RSV** replication, although its presence greatly improves virus growth in cell culture. The attenuated phenotype of these mutant viruses, coupled with the expected genetic stability associated with **gene** deletions, suggests that the DeltaNS2 **RSV** is a candidate for vaccine development.

39/3,AB/11 (Item 1 from file: 266)

DIALOG(R) File 266:FEDRIP

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00277619

IDENTIFYING NO.: 1Z01AI00372-17 AGENCY CODE: CRISP

REPLICATION, VIRULENCE & IMMUNOGENICITY IN RECOMBINANT RESPIRATORY SYNCYTIAL VIRUS

PRINCIPAL INVESTIGATOR: COLLINS, PETER LEON

ADDRESS: NIAID, NIH

SPONSORING ORG.: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES
FY : 2000

SUMMARY: Human **respiratory syncytial virus (RSV)** is the most important viral agent of pediatric respiratory tract disease worldwide and is responsible for a huge burden of morbidity and significant mortality. A licensed vaccine remains to be developed. Obstacles to vaccine development include the poor growth of the virus in cell culture, the semi-permissive nature of the infection in experimental animals, and the difficulty of achieving an appropriate balance between immunogenicity (which depends on reasonable levels of virus replication) and attenuation (which depends on reduced levels of virus replication). We recently developed a method for producing infectious recombinant **RSV** by the intracellular coexpression of cDNAs encoding a complete **RSV** replicative intermediate RNA (antigenome) and the N, P, L and M2-1 proteins, which together constitute a nucleocapsid that is fully competent for RNA synthesis. This provides an important tool for basic molecular and pathogenesis studies as well as a method for fine-tuning the level of attenuation of candidate vaccine viruses. **RSV** encodes ten mRNAs encoding eleven proteins (the M2 mRNA contains two overlapping ORFs encoding two separate proteins, M2-1 and M2-2). We investigated whether individual **RSV genes** could be knocked out? (**deleted**) without ablating the ability of the virus to grow in cell culture. To date, four **RSV genes** have been individually knocked out without loss of infectivity, namely **NS1**, NS2, SH, and G. **Deletion** of the NS2 **gene** is highly attenuating in vitro and in vivo and represents a very useful **mutation** for vaccine purposes. The **NS1** and SH knockout virus are moderately attenuating, and also are candidates for inclusion in a live-attenuated vaccine. The G knockout virus grows well in certain

cells but not others, implying that it is using an alternative receptor whose distribution is cell-specific. The ability to recover a G knockout virus shows that G is not essential for the formation or transmission of infectious virus, findings which have important implications for virus assembly and receptor usage. Finally, we previously showed that RSV can accept and express an added foreign gene. Here, we have expressed certain cytokines in recombinant RSV as a possible method to improve the immune response to a live-attenuated vaccine. - Virus, vaccine, live-attenuated viral vaccine, pediatrics, infectious disease, respiratory tract disease, recombinant DNA

39/3,AB/14 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
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130263124 CA: 130(20)263124d PATENT
attenuated recombinant respiratory syncytial virus expression systems and vaccines

INVENTOR(AUTHOR): Jin, Hong; Tang, Roderick; Li, Shengqiang; Bryant, Marty

LOCATION: USA

ASSIGNEE: Aviron, Inc.

PATENT: PCT International ; WO 9915631 A1 DATE: 19990401

APPLICATION: WO 98US20230 (19980928) *US 60153 (19970926) *US 84133 (19980504) *US 89207 (19980612)

PAGES: 85 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C12N-007/04A; C12N-007/01B DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; GM; HR; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; UZ; VN; YU; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; SD; SZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

39/3,AB/15 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
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128151668 CA: 128(13)151668m PATENT
Attenuated respiratory syncytial virus with a temperature-sensitive mutation in the polymerase and their use in vaccines

INVENTOR(AUTHOR): Murphy, Brian R.; Collins, Peter L.; Whitehead, Stephen S.; Bukreyev, Alexander A.; Juhasz, Katalin; Teng, Michael N.

LOCATION: USA

ASSIGNEE: United States Dept. of Health and Human Services; Murphy, Brian R.; Collins, Peter L.; Whitehead, Stephen S.; Bukreyev, Alexander A.; Juhasz, Katalin; Teng, Michael N.

PATENT: PCT International ; WO 9802530 A1 DATE: 19980122

APPLICATION: WO 97US12269 (19970715) *US 21773 (19960715) *US 46141 (19970509) *US 47634 (19970523)

PAGES: 242 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C12N-007/04A; C12N-007/01B; A61K-039/155B; C12N-015/45B; C12N-007/00B

DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; HU; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; UZ; VN; YU; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; KE; LS; MW; SD; SZ; UG; ZW; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE;

BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG

39/3,AB/58 (Item 11 from file: 349)
 DIALOG(R)File 349:PCT Fulltext
 (c) 2000 WIPO/MicroPat. All rts. reserv.

00664865

**MUTATIONS RESPONSIBLE FOR ATTENUATION IN MEASLES VIRUS OR HUMAN
 RESPIRATORY SYNCYTIAL VIRUS SUBGROUP B
 MUTATIONS RESPONSABLES DE L'ATTENUATION DU VIRUS DE LA ROUGEOLE OU DU VIRUS
 RESPIRATOIRE SYNCYTIAL HUMAIN DU SOUS-GROUPE B**

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9949017 A2 19990930

Application: WO 99US6225 19990322 (PCT/WO US9906225)

Priority Application: US 9879466 19980326

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV

MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG

US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ

TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI

CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 18243

English Abstract

Isolated, recombinantly-generated, attenuated measles viruses and
 respiratory syncytial subgroup B viruses having defined attenuating
 mutations are described. Vaccines are formulated comprising such viruses
 and a physiologically acceptable carrier. The vaccines are used for
 immunizing an individual to induce protection against measles virus or
 respiratory syncytial subgroup B virus.

French Abstract

L'invention concerne le virus de la rougeole et le virus respiratoire
 syncytial humain du sous-groupe B, ces virus atant isolas, ganaras par
 recombinaison et attanuas et prasantant des mutations d'attenuation
 dafinies. L'invention concerne agalement des formulations de vaccins
 comprenant ces virus et un excipient physiologiquement acceptable. Les
 vaccins s'utilisent pour immuniser un individu et le protager contre le
 virus de la rougeole ou le virus respiratoire syncytial humain du
 sous-groupe B.

39/3,AB/89 (Item 42 from file: 349)
 DIALOG(R)File 349:PCT Fulltext
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00557563

PRODUCTION OF ATTENUATED RESPIRATORY SYNCYTIAL VIRUS VACCINES FROM CLONED NUCLEOTIDE SEQUENCES

PRODUCTION DE VACCINS A BASE DE VIRUS RESPIRATOIRE SYNCYTIAL ATTENUÉ, A PARTIR DE SEQUENCES NUCLEOTIDIQUES CLONÉES

Patent Applicant/Assignee:

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TENG Michael N, TENG, Michael, N., 12316 Village Square Terrace #102, Rockville, MD 20852, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 9802530 A1 19980122

Application: WO 97US12269 19970715 (PCT/WO US9712269)

Priority Application: US 9621773 19960715; US 9746141 19970509; US 9747634 19970523

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN

MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU

ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES

FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD

TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 64494

English Abstract

Attenuated respiratory syncytial virus (RSV) and vaccine compositions thereof are produced by introducing specific mutations associated with attenuating phenotypes into wild-type or RSV which is incompletely attenuated by cold-passage or introduction of mutations which produce virus having a temperature sensitive (<u>ts</u>) or cold adapted (<u>ca</u>) phenotype. Alternatively, recombinant RSV and vaccine compositions thereof incorporate attenuating and other mutations specifying desired structural and/or phenotypic characteristics in an infectious RSV. Recombinant RSV incorporate desired mutations specified by insertion, deletion, substitution or rearrangement of a selected nucleotide sequence, gene, or gene segment in an infectious RSV clone. The immune system of an individual is stimulated to induce protection against natural RSV infection, or multivalently against infection by RSV and another pathogen, such as PIV, by administration of attenuated, biologically derived or recombinant RSV.

French Abstract

On produit un virus respiratoire syncytial (VRS) et des compositions vaccinales a base dudit virus en introduisant des mutations specifiques associees a des phenotypes attenuants dans le type sauvage ou VRS. Celui-ci est incompletement attenué soit par passage au froid, soit par introduction de mutations qui donnent des virus ayant un phenotype

sensible a la temperature (< u> ts < /u>) ou adapte au froid (< u> ca < /u>). Le VRS recombinant et ses compositions vaccinales peuvent egalement introduire dans un VRS infectieux des mutations attenuantes ou d'autres mutations specifiant ses caracteristiques structurales ou phenotypiques. Le VRS recombinant incorpore les mutations desirees specifiees par insertion, deletion, substitution ou rearrangement d'une sequence de nucleotides, d'un gene ou d'un segment de gene selectionne, dans un clone de VRS infectieux. Le systeme immunitaire d'un individu est stimule de facon a induire une protection contre l'infection a VRS naturel, ou, de maniere plurivalente, contre l'infection a VRS et un autre pathogene, tel le virus para-influenza, par l'administration d'un VRS attenuue, biologiquement derive ou recombinant.

39/3,AB/109 (Item 62 from file: 349)
 DIALOG(R)File 349:PCT Fulltext
 (c) 2000 WIPO/MicroPat. All rts. reserv.

00511883

PRODUCTION OF INFECTIOUS RESPIRATORY SYNCYTIAL VIRUS FROM CLONED NUCLEOTIDE SEQUENCES
PRODUCTION DE VIRUS SYNCYTIAL RESPIRATOIRE INFECTIEUX A PARTIR DE SEQUENCES DE NUCLEOTIDES CLONES

Patent Applicant/Assignee:

THE GOVERNMENT OF THE UNITED STATES OF AMERICA as represented by THE COLLINS Peter L

Inventor(s):

COLLINS Peter L

Patent and Priority Information (Country, Number, Date):

Patent: WO 9712032 A1 19970403

Application: WO 96US15524 19960927 (PCT/WO US9615524)

Priority Application: US 957083 19950927

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 16569

English Abstract

Isolated polynucleotide molecules provide **RSV** genome and antigenomes, including that of human, bovine or murine **RSV** or **RSV** -like viruses, and chimera thereof. The recombinant genome or antigenome can be expressed with a nucleocapsid (N) protein, a nucleocapsid phosphoprotein (P), a large (L) polymerase protein, and an RNA polymerase elongation factor to produce isolated infections **RSV** particles. The recombinant **RSV** genome and antigenome can be modified to produce desired phenotypic changes, such as attenuated viruses for vaccine use.

French Abstract

Cette invention concerne des molecules de polynucleotides isolees permettant d'obtenir des genomes et antigenomes de VSR, y compris ceux de VSR humains, bovins et murins ou de virus de type VSR, ainsi que leurs chimeres. Le genome ou antigenome recombine peut etre exprime a l'aide d'une proteine a nucleocapside (N), d'une phosphoproteine a nucleocapside (P), d'une proteine de polymerase de grande taille (L) et d'un facteur d'allongement d'ARN polymerase afin de produire des particules de VSR infectieuses isolees. Les genome et antigenome de VSR recombines peuvent etre modifies afin de produire les changements phenotypiques voulus, tel que des virus affaiblis pouvant etre utilises dans des vaccins.

DIALOG

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7, September 12, 2000, 10:20

53/3,AB/4 (Item 4 from file: 155)
DIALOG(R) File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.

09724370 99033106

Recombinant human respiratory syncytial virus (RSV) from cDNA and construction of subgroup A and B chimeric RSV.

Jin H; Clarke D; Zhou HZ; Cheng X; Coelingh K; Bryant M; Li S
Aviron, 297 North Bernardo Avenue, Mountain View, California, 94043, USA.
hjin@aviron.com

Virology (UNITED STATES) Nov 10 1998, 251 (1) p206-14, ISSN 0042-6822
Journal Code: XEA

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Infectious human **respiratory syncytial virus (RSV)** was produced from a cDNA clone that contains 15,222 nucleotides of **RSV** genome derived from the A2 strain of subgroup A. Recovery of infectious **RSV** from cDNA required cotransfection of only three expression plasmids encoding the nucleoprotein (N), the phosphoprotein (P), and the major polymerase protein (L). Inclusion of the **M2 -1** plasmid was not required in the transfection reaction and if included did not significantly increase the rescue efficiency. However, a single nucleotide substitution in the **RSV** leader region (C to G at position 4 in the antigenomic sense), greatly increased the amount of infectious virus recovered from cDNA. A recombinant **RSVA2** virus that expresses an additional structural G protein derived from a subgroup B **RSV** was also obtained. Both A2 and B strain G glycoproteins were expressed in cells infected with the chimeric **RSV**. A chimeric **RSV** that expresses a heterologous subgroup antigen in a live attenuated vaccine candidate may be important for prevention of diseases associated with both **RSV** subgroup A and subgroup B infection. Copyright 1998 Academic Press.

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67/3,AB/5 (Item 5 from file: 155)
 DIALOG(R)File 155:MEDLINE(R)
 (c) format only 2000 Dialog Corporation. All rts. reserv.

05694834 90010973

Protection of cotton rats against human respiratory syncytial virus by vaccination with a novel chimeric FG glycoprotein.

Brideau RJ; Walters RR; Stier MA; Wathen MW
 Upjohn Company, Kalamazoo, Michigan 49001.
 Journal of general virology (ENGLAND) Oct 1989, 70 (Pt 10) p2637-44,
 ISSN 0022-1317 Journal Code: I9B
 Languages: ENGLISH
 Document type: JOURNAL ARTICLE

The cotton rat model of experimental human **respiratory syncytial virus (RSV)** infection was used to study the efficacy of FG, a novel **chimeric** glycoprotein which was expressed in insect cells using a baculovirus vector. FG contained the extracellular regions of the F (fusion) and G (attachment) glycoproteins of **RSV**. Vaccination with FG resulted in induction of neutralizing antibody and was correlated with protection of lung tissue from **RSV** challenge against both serogroup A and B virus **strains**. Both crude FG taken from supernatants of insect cells and affinity-purified FG were immunogenic and active against **RSV**. FG vaccination was effective by three routes of administration, following a single dose, and when administered with different adjuvants.

67/3,AB/6 (Item 1 from file: 34)
 DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
 (c) 2000 Inst for Sci Info. All rts. reserv.

07134723 Genuine Article#: 127RL Number of References: 200

Title: Respiratory syncytial virus (RSV) disease and prospects for its control

Author(s): Wyde PR (REPRINT)

Corporate Source: BAYLOR COLL MED, DEPT MICROBIOL & IMMUNOL, 1 BAYLOR PLAZA/HOUSTON//TX/77030 (REPRINT)

Journal: ANTIVIRAL RESEARCH, 1998, V39, N2 (AUG), P63-79

ISSN: 0166-3542 Publication date: 19980800

Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

Language: English Document Type: REVIEW

Abstract: Respiratory syncytial virus (RSV) is a major virus pathogen of infants and young children, an important cause of disease in adults and is responsible for a significant amount of excess morbidity and mortality in the elderly. It also can be devastating in immunosuppressed populations. Vaccines are being developed, but none are currently licensed. Moreover, even if one or more are approved, they may not be suitable for some populations vulnerable to **RSV** (e.g. very young infants and the immunosuppressed). Ribavirin and immunoglobulin preparations with high titers of **RSV**-specific neutralizing antibodies are currently approved for use to treat and prevent **RSV** infection. However, neither of these is cost-effective or simple to administer. New agents are needed to reduce the impact of **RSV**. This review is concerned with the means currently available for controlling **RSV**, the search for new agents effective against this virus, and future prospects for preventing and treating **RSV** infections. (C) 1998 Elsevier Science B.V. All rights reserved.

67/3,AB/8 (Item 1 from file: 357)
 DIALOG(R)File 357:Derwent Biotechnology Abs

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0225585 DBA Accession No.: 98-07182 PATENT

**Purifying respiratory- syncytial virus chimeric antigen by
filtration and chromatography- recombinant fusion protein purification
from CHO-K1 cell culture, for use as recombinant vaccine**

AUTHOR: Bollen A; Gheysen D; Houard S; Prieels J P; Slaoui M M; van
Opstal O; Andre C J R

CORPORATE SOURCE: Rixensart, Belgium.

PATENT ASSIGNEE: SK-Beecham-Biol. 1998

PATENT NUMBER: WO 9818819 PATENT DATE: 980507 WPI ACCESSION NO.:
98-272134 (9824)

PRIORITY APPLIC. NO.: GB 9622438 APPLIC. DATE: 961029

NATIONAL APPLIC. NO.: WO 97EP6016 APPLIC. DATE: 971027

LANGUAGE: English

ABSTRACT: A new method for the improved purification of **respiratory - syncytial virus (RSV)** recombinant F-G **chimeric** protein (I) involves filtering an impure solution of (I) to remove viruses, subjecting the solution to cation-exchange, metal-chelating and anion-exchange chromatography and recovering (I), inactivating the solution and sterilizing by filtration. Alternatively the starting solution is subjected to one of the specified chromatographies, filtered to remove virus, and subjected to the other chromatographic operations. (I) is used in recombinant vaccines for preventing primary or subsequent infections, or for improving the immune response in seropositive individuals, e.g. pregnant women or immunocompromized subjects. Vaccines containing purified (I) are able to eliminate a subsequent **RSV** infection from the lung without causing lung injury. (I) is preferably expressed in CHO-K1 cell culture transfected with plasmid pEE14-FG encoding F and G components from **strains** SS2 and A2, respectively. (33pp)

67/3,AB/11 (Item 2 from file: 348)

DIALOG(R) File 348:European Patents

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00566187

Respiratory syncytial virus (RSV) mutant and pharmaceutical composition containing such a mutant

Mutante des Respiratory- syncytial- Virus (RS-Virus) und eine eine solche Mutante enthaltende pharmazeutische Zusammensetzung

Mutant du virus syncytial respiratoire (RSV) et composition pharmaceutique contenant un tel mutant

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AT;BE;CH;DE;DK;ES;FR;GB;GR;IE;IT;LI;LU;NL;PT;SE)

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LEGAL REPRESENTATIVE:

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PATENT (CC, No, Kind, Date): EP 567100 A1 931027 (Basic)
EP 567100 B1 990317

APPLICATION (CC, No, Date): EP 93106496 930421;

PRIORITY (CC, No, Date): US 871420 920421

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; NL;

DIALOG

PT; SE

INTERNATIONAL PATENT CLASS: C12N-015/45; C12N-007/08; C12N-015/87;
A61K-048/00; C12N-015/86; A61K-039/155; C07K-014/135;

ABSTRACT EP 567100 A1

This invention provides cold adapted mutant **RSV**, specifically, mutant **RSV** of subgroup A and B. Nucleic acid molecules encoding the mutant **RSV** of this invention, and immunogenic polypeptides of these mutant **RSV** also are provided by this invention. Pharmaceutical compositions containing any of the above compositions are provided herein. These are especially useful as vaccines. Further provided by this invention are methods of vaccinating a subject against **RSV** infection using the pharmaceutical compositions described herein.

ABSTRACT WORD COUNT: 77

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9911	275
CLAIMS B	(German)	9911	215
CLAIMS B	(French)	9911	308
SPEC B	(English)	9911	10058
Total word count - document A			0
Total word count - document B			10856
Total word count - documents A + B			10856

67/3,AB/12 (Item 3 from file: 348)

DIALOG(R) File 348:European Patents

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00334126

CHIMERIC GLYCOPROTEINS CONTAINING IMMUNOGENIC SEGMENTS OF THE
GLYCOPROTEINS OF HUMAN RESPIRATORY SYNCYTIAL VIRUS.
CHIMARENGLYKOPROTEINE, ENTHALTEND IMMUNOGENE SEGMENTE DES HUMANEN
RESPIRATORISCHEN SYNZYTIALVIRUS.
GLYCOPROTEINES CHIMERIQUES CONTENANT DES SEGMENTS IMMUNOGENIQUES DES
GLYCOPROTEINES DU VIRUS SYNCYTIAL RESPIRATOIRE HUMAIN.

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 396563 A1 901114 (Basic)
EP 396563 B1 930210
WO 8905823 890629

APPLICATION (CC, No, Date): EP 88909879 881031; WO 88US3784 881031

PRIORITY (CC, No, Date): US 137387 871223

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: C07K-013/00; C12N-015/00; A61K-039/155;
C12N-007/00; C12N-001/20; C12N-001/18; C12N-005/00;

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	291

CLAIMS B	(German)	EPBBF1	234
CLAIMS B	(French)	EPBBF1	322
SPEC B	(English)	EPBBF1	11633
Total word count - document A			0
Total word count - document B			12480
Total word count - documents A + B			12480

67/3,AB/13 (Item 4 from file: 348)
 DIALOG(R)File 348:European Patents
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00334012

RESPIRATORY SYNCYTIAL VIRUS: VACCINES
RESPIRATORISCHES SYNCYTIALES VIRUS, IMPSTOFFE
VIRUS SYNCYTIAL RESPIRATOIRE: VACCINS
 PATENT ASSIGNEE:

AMERICAN CYANAMID COMPANY, (212595), One Portland Square, Portland, Maine
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 MARTIN-GALLARDO, Antonia, 873 Pinnacle Road, Pittsford, NY 14534, (US)
 ARUMUGHAM, Rasappa, 7 Cactus Drive, West Henrietta, NY 14586, (US)

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 Patentanwalte Beselerstrasse 4, 22607 Hamburg, (DE)

PATENT (CC, No, Kind, Date): EP 390799 A1 901010 (Basic)
 EP 390799 A1 920902
 EP 390799 B1 980304
 WO 8902935 890406

APPLICATION (CC, No, Date): EP 88909698 880929; WO 88US3399 880929
 PRIORITY (CC, No, Date): US 102180 870929; US 247017 880920
 DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE
 INTERNATIONAL PATENT CLASS: C12Q-001/70; C12N-015/00; C12N-001/20;
 A61K-039/155;

NOTE:

No A-document published by EPO
 LANGUAGE (Publication,Procedural,Application): English; English; English
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9810	125
CLAIMS B	(German)	9810	138
CLAIMS B	(French)	9810	134
SPEC B	(English)	9810	12000
Total word count - document A			0
Total word count - document B			12397
Total word count - documents A + B			12397

67/3,AB/17 (Item 4 from file: 349)
 DIALOG(R)File 349:PCT Fulltext
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00628734

RNA RESPIRATORY SYNCYTIAL VIRUS VACCINES
VACCINS A ARN CONTRE LE VIRUS RESPIRATOIRE SYNCYTIAL
 Patent Applicant/Assignee:

CONNAUGHT LABORATORIES LIMITED, CONNAUGHT LABORATORIES LIMITED , 1755

Steeles Avenue West, North York, Ontario M2R 3T4 , CA

Inventor(s):

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L3Z 1Z4 , CA

Patent and Priority Information (Country, Number, Date):

Patent: WO 9911808 A1 19990311

Application: WO 98CA840 19980903 (PCT/WO CA9800840)

Priority Application: US 97923558 19970904

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US

UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE

CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN

GW ML MR NE SN TD TG

Publication Language: English

Filing Language: English

Fulltext Word Count: 9852

English Abstract

A vector comprising a first DNA sequence which is complementary to at least part of an alphavirus RNA genome and having the complement of complete alphavirus DNA genome replication regions, a second DNA sequence encoding a paramyxovirus protein, particularly a **respiratory syncytial virus** fusion (RSV F) protein or an RSV F protein fragment that generates antibodies that specifically react with RSV F protein, the first and second DNA sequences being under the transcriptional control of a promoter is described. Such vector may be used to produce an RNA transcript which may be used to immunize a host, including a human host, to protect the host against disease caused by paramyxovirus, particularly **respiratory syncytial virus**, by administration to the host. The RNA transcript may be formed by linearization of the vector through cleavage at a unique restriction site in a plasmid vector and then transcribing the linear molecule.

French Abstract

L'invention se rapporte C un vecteur comprenant une premiere sequence d'ADN, complementaire C une partie au moins du genome d'un ARN d'alphavirus et possedant le complement des regions completes de replication du genome d'un ADN d'alphavirus, une deuxieme sequence d'ADN codant pour une proteine de paramyxovirus, en particulier pour une proteine de fusion du virus respiratoire syncytial (SRV F) ou un fragment de la proteine de SRV F qui genere les anticorps reagissant specifiquement avec la proteine SRV F. Les premiere et deuxieme sequences d'ADN se trouvent sous le contrfle transcriptionnel d'un promoteur. Le vecteur decrit dans l'invention peut etre utilise pour fabriquer un transcript d'ARN pouvant etre administre C un hfte (y compris un hfte humain) afin de l'immuniser et de le proteger contre une maladie causee par un paramyxovirus, en particulier par le virus respiratoire syncytial. On peut former le transcript d'ARN en procedant C la linearisation du vecteur par le clivage sur un site de restriction unique dans un plasmide vecteur et par la transcription ulterieure de la molecule lineaire.

67/3,AB/23 (Item 10 from file: 349)

DIALOG(R) File 349:PCT Fulltext

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00445016

NUCLEIC ACID RESPIRATORY SYNCYTIAL VIRUS VACCINES

VACCINS A ACIDES NUCLEIQUES DU VIRUS RESPIRATOIRE SYNCYTIAL

Patent Applicant/Assignee:

CONNAUGHT LABORATORIES LIMITED

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9640945 A2-A3 19961219

Application: WO 96CA398 19960607 (PCT/WO CA9600398)

Priority Application: US 95476397 19950607

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB

GE HU IS JP KE KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO

RU SD SE SG SI TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ

MD RU TJ TM AT DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI

CM GA GN ML MR TD TG

Publication Language: English

Fulltext Word Count: 12090

English Abstract

Vectors containing a nucleotide sequence coding for an F protein of **respiratory syncytial virus (RSV)** and a promoter for such sequence, preferably a cytomegalovirus promoter, are described. Such vectors also may contain a further nucleotide sequence located adjacent to the **RSV** F protein encoding sequence to enhance the immunoprotective ability of the **RSV** F protein when expressed in vivo. Such vectors may be used to immunize a host, including a human host, by administration thereto. Such vectors also may be used to produce antibodies for detection of **RSV** infection in a sample.

French Abstract

L'invention concerne des vecteurs qui contiennent une sequence de nucleotides codant une proteine F du virus respiratoire syncytial et un promoteur de cette sequence, de preference un promoteur de cytomegalovirus. Ces vecteurs peuvent egalement contenir une sequence supplementaire de nucleotides adjacente a la sequence codant la proteine F du virus respiratoire syncytial afin d'ameliorer la capacite immunoprotectrice de la proteine F du virus respiratoire syncytial exprimee in vivo. On peut administrer ces vecteurs a un hote, y compris a un hote humain, pour l'immuniser. On peut egalement utiliser ces vecteurs pour produire des anticorps pour detecter l'infection par le virus respiratoire syncytial dans un echantillon.

67/3,AB/32 (Item 19 from file: 349)

DIALOG(R) File 349:PCT Fulltext

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00291823

METHODS OF USE OF BOVINE RESPIRATORY SYNCYTIAL VIRUS RECOMBINANT DNA, PROTEINS VACCINES, ANTIBODIES, AND TRANSFORMED CELLS

PROCEDES D'UTILISATION D'ADN RECOMBINE DU VIRUS RESPIRATOIRE SYNCYTICAL DES BOVINS, PROTEINES, VACCINS, ANTICORPS, ET CELLULES TRANSFORMEES

Patent Applicant/Assignee:

THE UAB RESEARCH FOUNDATION

Inventor(s):

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LERCH Robert

Patent and Priority Information (Country, Number, Date):

Patent: WO 9201471 A1 19920206

Application: WO 91US5194 19910723 (PCT/WO US9105194)

Priority Application: US 90557267 19900724

Designated States: AT AU BE CA CH DE DK ES FI FR GB GR HU IT JP LU NL NO SE
SU

Publication Language: English

Fulltext Word Count: 24301

English Abstract

The present invention relates to recombinant DNA molecules which encode bovine respiratory syncytial (BRS) virus proteins, to BRS virus proteins, and peptides and to recombinant BRS virus vaccines produced therefrom. It is based, in part, on the cloning of substantially full length cDNAs which encode the entire BRS virus G, F, and N proteins. According to particular embodiments of the invention, DNA encoding a BRS virus protein or peptide may be used to diagnose BRS virus infection, or, alternatively, may be inserted into an expression vector, including, but not limited to, vaccinia virus as well as bacterial, yeast, insect, or other vertebrate vectors. These expression vectors may be utilized to produce the BRS virus protein or peptide in quantity; the resulting substantially pure viral peptide or protein may be incorporated into subunit vaccine formulations or may be used to generate monoclonal or polyclonal antibodies which may be utilized in diagnosis of BRS virus infection or passive immunization. In additional embodiments, BRS virus protein sequence provided by the invention may be used to produce synthetic peptides or proteins which may be utilized in subunit vaccines, or polyclonal or monoclonal antibody production. Alternatively, a nonpathogenic expression vector containing the genes, parts of the genes, any combination of the genes, or parts thereof may itself be utilized as a recombinant virus vaccine.

French Abstract

On decrit des molecules d'ADN recombine codant les proteines du virus respiratoire syncytial des bovins (BRS), les proteines et peptides du virus BRS, et des vaccins contre le virus BRS recombine, ces vaccins etant produits a partir de ceux-ci. Dans un premier temps, on clone les ADN complementaires entiers qui codent la totalite des proteines G, F et N du virus BRS. Selon certains modes de realisation, on peut utiliser l'ADN qui code une proteine ou un peptide du virus BRS pour le diagnostic d'une infection par le virus BRS. Sinon, on peut l'introduire dans un vecteur d'expression pouvant etre, entre autres, le virus vaccinal, ainsi que dans des vecteurs bacteriens, de la levure, des insectes ou d'autres vertebres. On peut utiliser ces vecteurs d'expression pour produire en masse la proteine ou le peptide du virus BRS. Le peptide ou la proteine viral(e) sensiblement pur(e) ainsi obtenu(e) peut s'incorporer a des compositions vaccinales sous-unitaires ou s'utiliser pour la production d'anticorps monoclonaux ou polyclonaux employes lors du diagnostic de l'infection par le virus BRS, ou de l'immunisation passive. Selon d'autres modes de realisation, on peut utiliser une sequence proteique du virus BRS pour produire des peptides ou des proteines synthetiques que l'on peut employer dans des vaccins sous-unitaires ou dans la production d'anticorps monoclonaux ou polyclonaux. En variante, on peut utiliser comme vaccin antiviral recombine un vecteur d'expression non pathogene contenant les genes, des parties de ceux-ci, une combinaison quelconque des genes ou des parties de celle-ci.

67/3,AB/33 (Item 20 from file: 349)

DIALOG(R) File 349:PCT Fulltext

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00246794

CHIMERIC GLYCOPROTEINS CONTAINING IMMUNOGENIC SEGMENTS OF THE
GLYCOPROTEINS OF HUMAN RESPIRATORY SYNCYTIAL VIRUS
GLYCOPROTEINES CHIMERIQUES CONTENANT DES SEGMENTS IMMUNOGENIQUES DES
GLYCOPROTEINES DU VIRUS SYNCYTIAL RESPIRATOIRE HUMAIN

Patent Applicant/Assignee:

THE UPJOHN COMPANY

WATHEN Michael

Inventor(s):

WATHEN Michael

Patent and Priority Information (Country, Number, Date):

Patent: WO 8905823 A1 19890629

Application: WO 88US3784 19881031 (PCT/WO US8803784)

Priority Application: US 87137387 19871223

Designated States: AT AU BE CH DE DK FI FR GB IT JP KR LU NL NO SE US

Publication Language: English

Fulltext Word Count: 15684

English Abstract

This invention encompasses DNA compositions encoding novel **chimeric** glycoproteins which are useful for preparing virus specific immune responses against human **respiratory syncytial virus**. The DNA compositions include structural genes coding for the glycoproteins and expression and replication plasmids containing the structural genes. Host cells transformed with the above DNA compositions, vaccines made from the glycoproteins and methods for protecting humans by inoculation with said vaccines are also part of this invention.

French Abstract

Cette invention concerne des compositions d'ADN codant de nouvelles glycoproteines chimeriques qui sont utiles pour la preparation de reponses immunes specifiques contre le virus syncytial respiratoire humain. Les compositions d'ADN comprennent des genes structuraux codant pour les glycoproteines et des plasmides d'expression et de replication contenant les genes structuraux. Des cellules hotes transformees avec les compositions d'ADN decrites ci-dessus, des vaccins obtenus a partir des glycoproteines ainsi que des procedes de protection des etres humains par inoculation desdits vaccins sont egalement decrits dans la presente invention.

67/3,AB/38 (Item 4 from file: 654)

DIALOG(R) File 654:US Pat.Full.

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02980241

Utility

MUTANT **RESPIRATORY SYNCYTIAL VIRUS (RSV)**, VACCINES CONTAINING SAME AND METHODS OF USE

PATENT NO.: 5,932,222

ISSUED: August 03, 1999 (19990803)

INVENTOR(s): Randolph, Valerie B., Lincoln Park, NJ (New Jersey), US
(United States of America)

Crowley, Joan C., Englewood, NJ (New Jersey), US (United States of America)

ASSIGNEE(s): American Cyanamid Company, (A U.S. Company or Corporation), Wayne, NJ (New Jersey), US (United States of America)

[Assignee Code(s): 2888]

APPL. NO.: 8-59,444

FILED: May 07, 1993 (19930507)

RELATED APPLICATIONS

The present application is a continuation-in-part of U.S. Ser. No. 07-871,420, filed on Apr. 21, 1992, now abandoned, the disclosure of which is incorporated herein by reference.

FULL TEXT: 3120 lines

ABSTRACT

This invention provides cold adapted mutant **RSV**, specifically, mutant **RSV** of subgroup A and B. Nucleic acid molecules encoding the mutant **RSV** of this invention, and immunogenic polypeptides of these mutant **RSV** also are provided by this invention. Pharmaceutical compositions containing any of the above compositions are provided herein. These are especially useful as vaccines. Further provided by this invention are methods of vaccinating a subject against **RSV** infection using the pharmaceutical compositions described herein.

67/3,AB/41 (Item 7 from file: 654)

DIALOG(R)File 654:US Pat.Full.

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02881786

Utility

NUCLEIC ACID **RESPIRATORY SYNCYTIAL VIRUS VACCINES.**

PATENT NO.: 5,843,913

ISSUED: December 01, 1998 (19981201)

INVENTOR(s): Li, Xiaomao, Thornhill, CA (Canada)

Ewasyshyn, Mary E., Willowdale, CA (Canada)

Sambhara, Suryaprakash, Markham, CA (Canada)

Klein, Michel H., Willowdale, CA (Canada)

ASSIGNEE(s): Connaught Laboratories Limited, (A Non-U.S. Company or Corporation), North York, CA (Canada)

[Assignee Code(s): 19557]

APPL. NO.: 8-659,939

FILED: June 07, 1996 (19960607)

REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of copending U.S. patent application Ser. No. 08-476,397, filed Jun. 7, 1995.

FULL TEXT: 1554 lines

ABSTRACT

Vectors containing a nucleotide sequence coding for an F protein of **respiratory syncytial virus (RSV)** and a promoter for such sequence, preferably a cytomegalovirus promoter, are described. Such vectors also may contain a further nucleotide sequence located adjacent to the **RSV** F protein encoding sequence to enhance the immunoprotective ability of the **RSV** F protein when expressed in vivo. Such vectors may be used to immunize a host, including a human host, by administration thereto. Such vectors also may be used to produce antibodies for detection of **RSV** infection in a sample.

DIALOG

67/3,AB/51 (Item 17 from file: 654)
DIALOG(R)File 654:US Pat.Full.
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02197487

Utility

RESPIRATORY SYNCYTIAL VIRUS : VACCINES
[Polypeptide]

PATENT NO.: 5,223,254
ISSUED: June 29, 1993 (19930629)
INVENTOR(s): Paradiso, Peter R., Pittsford, NY (New York), US (United States of America)
Hildreth, Stephen W., Rochester, NY (New York), US (United States of America)
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Martin-Gallardo, Antonia, Pittsford, NY (New York), US (United States of America)
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ASSIGNEE(s): Praxis Biologics, Inc , (A U.S. Company or Corporation),
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[Assignee Code(s): 20015]
EXTRA INFO: Assignment transaction [Reassigned], recorded June 11,
1997 (19970611)
APPL. NO.: 7-247,017
FILED: September 20, 1988 (19880920)

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of application Ser. No. 07-102,180, filed Sep. 29, 1987, currently abandoned.

FULL TEXT: 2397 lines

ABSTRACT

Polypeptides, nucleotides, and compositions useful for preparing diagnostic reagents for and vaccines against human **Respiratory Syncytial Virus** are disclosed. The polypeptides include short polypeptides which are related to a neutralizing and fusion epitope of the **Respiratory Syncytial Virus** fusion protein or a neutralizing epitope of the G protein.

67/3,AB/52 (Item 18 from file: 654)
DIALOG(R)File 654:US Pat.Full.
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02165840

Utility

CHIMERIC GLYCOPROTEINS CONTAINING IMMUNOGENIC SEGMENTS OF THE GLYCOPROTEINS OF HUMAN RESPIRATORY SYNCYTIAL VIRUS
[Vaccines for protecting humans by inoculation against respiratory system infections]

PATENT NO.: 5,194,595

10, September 12, 2000, 10:53

DIALOG

ISSUED: March 16, 1993 (19930316)
INVENTOR(s): Wathen, Michael W., Portage, MI (Michigan), US (United States of America)
ASSIGNEE(s): The Upjohn Company, (A U.S. Company or Corporation), Kalamazoo, MI (Michigan), US (United States of America)
[Assignee Code(s): 87912]
EXTRA INFO: Assignment transaction [Reassigned], recorded August 28, 1998 (19980828)
APPL. NO.: 7-543,780
FILED: June 20, 1990 (19900620)
PCT: PCT-US89-03784 (WO 89US3784)
Section 371 Date: June 20, 1990 (19900620)
Section 102(e) Date: June 20, 1990 (19900620)
Filing Date: October 31, 1988 (19881031)
Publication Number: WO87-04185 (WO 874185)
Publication Date: July 16, 1987 (19870716)

This is a continuation-in-part of application Ser. No. 07-137,387, filed Dec. 23, 1987, now abandoned.

FULL TEXT: 1209 lines

ABSTRACT

This invention encompasses DNA compositions encoding novel **chimeric** glycoproteins which are useful for preparing virus specific immune responses against human **respiratory syncytial virus** . The DNA compositions include structural genes coding for the glycoproteins and expression and replication plasmids containing the structural genes. Host cells transformed with the above DNA compositions, vaccines made from the glycoproteins and methods for protecting humans by inoculation with said vaccines are also part of this invention.

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70/3,AB/1 (Item 1 from file: 357)
 DIALOG(R) File 357:Derwent Biotechnology Abs
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0197297 DBA Accession No.: 96-07438 PATENT

**Recombinant negative strand RNA virus expression systems- for application
 as a respiratory- syncytial virus recombinant vaccine**

AUTHOR: Clarke D K; Palese P M

CORPORATE SOURCE: Burlingame, CA, USA.

PATENT ASSIGNEE: Aviron 1996

PATENT NUMBER: WO 9610632 PATENT DATE: 960411 WPI ACCESSION NO.:
 96-209354 (9621)

PRIORITY APPLIC. NO.: US 316439 APPLIC. DATE: 940930

NATIONAL APPLIC. NO.: WO 95US12560 APPLIC. DATE: 950929

LANGUAGE: English

ABSTRACT: The following are claimed: (1) a chimeric virus composed of the negative-strand RNA virus respiratory-syncytial virus (RSV) containing a heterologous RNA sequence including the reverse complement of a mRNA coding sequence linked to a **polymerase binding site** of the RSV; (2) a method for producing a chimeric RSV by culturing a host cell transfected with a heterologous RNA sequence including the reverse complement of a mRNA coding sequence linked to a RSV **polymerase binding site**, and infected with a parental strain of RSV, and recovering the chimeric virus from the culture; and (3) a chimeric RSV produced by this method. Preferably, the heterologous sequence is non-native to RSV, or may be a translocated RSV sequence encoding an RSV M1 protein, RSV F protein, RSV G protein, RSV N protein, or RSV L protein. Preferably, the RSV sequence contains a single, or multiple base substitution, addition, or deletion. Recombinant negative-sense RNA templates can be mixed with purified viral polymerase proteins and nucleoprotein to form infectious recombinant ribonucleoproteins which can be used to for heterologous gene expression, and in **vaccine** formulations. (106pp)

70/3,AB/2 (Item 1 from file: 340)
 DIALOG(R) File 340:CLAIMS(R)/US Patent
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Dialog Acc No: 3075985 IFI Acc No: 9840136

Document Type: C

**RECOMBINANT NEGATIVE STRAND RNA VIRUS EXPRESSION SYSTEMS; MAY BE USED IN
 VACCINES FOR INFLUENZA AND RESPIRATORY SYNCYTIAL VIRUS**

Inventors: Clarke David Kirkwood (US); Palese Peter M (US)

Assignee: Aviron Inc Assignee Code: 40311

Patent (No,Date), Applic (No,Date)

US 5840520 19981124 US 94316439 19940930

Calculated Expiration: 20151124

Continuation Pat(No),Applic(No,Date): ABANDONED
 19920804

US 92925061

Cont.-in-part Pat(No),Applic(No,Date): ABANDONED

US 89399728

19890828; ABANDONED

US 89440053

19891121; ABANDONED

US 94190698

19940201

Division Pat(No),Applic(No,Date): US 5166057

US 90527237

19900522

Priority Applic(No,Date): US 94316439

19940930; US 92925061

19920804;

US 89399728 19890828; US 89440053

19891121; US 94190698

19940201;

US 90527237 19900522

Abstract:

Recombinant negative strand virus RNA templates which may be used to

DIALOG

express heterologous gene products and/or to construct chimeric viruses are described. Influenza viral polymerase, which was prepared depleted of viral RNA, was used to copy small RNA templates prepared from plasmid-encoded sequences. Template constructions containing only the 3' end of genomic RNA were shown to be efficiently copied, indicative that the promoter lay solely within the 15 nucleotide 3' terminus. Sequences not specific for the influenza viral termini were not copied, and, surprisingly, RNAs containing termini identical to those from plus sense cRNA were copied at low levels. The specificity for recognition of the virus-sense promoter was further defined by site-specific mutagenesis. It was also found that increased level of viral protein were required in order to catalyze both the capendonuclease primed and primer-free RNA synthesis from these model templates as well as from genomic length RNAs. This indicated that this reconstituted system had catalytic properties very similar to those of native viral RNPs. High levels of expression of a heterologous gene was obtained using the constructs and methods described. The system was exemplified using Influenza and respiratory syncytial virus.

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DIALOG

73/3,AB/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10117782 99039016

Improved protocol for high-throughput cysteine scanning mutagenesis

Howorka S; Bayley H

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BioTechniques (UNITED STATES) Nov 1998, 25 (5) p764-6, 768, 770 passim

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Languages: ENGLISH

Document type: JOURNAL ARTICLE

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